discussed in two separate chapters. Neither of the two complete summaries of the US Dietary Goals is listed in the index. There is no listing for aging or geriatrics even though special issues pertaining to the nutritional status of the elderly are addressed in the chapter on drug-diet interactions and in the one on food assistance programs. These omissions prevent the use of this volume as a reference text.

Finally, the 30 nutrition quiz questions will not encourage the National Board of Medical Examiners to require nutrition information as a condition for licensing of physicians. Such questions as "An average supermarket contains the following number of different food items from which the housewife must choose to build a nutritious diet for her family: (a) 1,000, (b) 500, (c) 5,000, (d) 15,000, (e) none of the above" (answer: c), and "Which of the following does not represent a good buy nutritionally for a low-income family: (a) loaf of bread (whole wheat or white), (b) skim milk powder, (c) protein-enriched spaghetti, (d) peanut butter, (e) lettuce" (answer: e) make nutritional science seem trival and do not reinforce the very great importance of nutrition knowledge to the prevention and treatment of disease.

With a more comprehensive overview, better organization and more attention to editorial detail, *Nutrition and Medical Practice* could have made a useful contribution to the nutrition instruction of health professionals.

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THE 1980 YEAR BOOK OF FAMILY PRACTICE—Editor: Robert E. Rakel, MD, Professor and Head, Department of Family Practice, University of Iowa College of Medicine; Associate Editors: Forrest Dean, MD; Charles E. Driscoll, MD; Charles W. Smith, MD, and James L. Wilson, MD. Year Book Medical Publishers, 35 East Wacker Drive, Chicago, IL (60601), 1980. 453 pages, $32.95.

Most physicians are familiar with the current year book series which has grown to cover 23 medical disciplines.

The Year Books call attention to the problem of getting medical manuscripts into print in a punctual fashion. This *1980 Year Book of Family Practice* has a 1980 imprint, but the authors state that literature review stopped in July 1979. A year is about as fast as a physician can come to obtaining prompt information in book form. The alternative would be for the physician to do his own journal searches.

The 400 articles for the 1980 edition were selected from 100 national and foreign journals after the editors reviewed 20,000 articles. The editors have divided the contents into 18 sections ranging from Infectious Diseases to Family Problems.

Year books are not the type of books that physicians sit down to read; this one is no different. Ordinarily, the books are used as reference work. The editors appear to recognize this use by preparing an excellent 15-page index as well as an authors' index. This helps make the book a useful reference tool.

In addition, the editors offer a current literature quiz based on information presented in the book. The questions are numbered and a physician can find the answers by selecting the proper page number from a table in the back of the book. I suspect this is an effort to make *The Year Book of Family Practice* an educational experience. It is a good idea, but I suspect most readers will pass up that exercise in continuing medical education.

Coming from university departments of family practice where obstetrics is given short shrift, a family physician might be surprised to find that the editors have chosen 13 articles covering 17 pages on obstetrics. This inclusion speaks well for the editors' concept of family medicine.

But in contrast, there is no section on surgery. Surgical treatment is only incidentally mentioned in the other 18 sections. For instance, on pages 332 and 333 in the section on dermatology, articles on electrosurgery of skin lesions and the surgical treatments of ingrown toenails are found. At the same time, Dr. Rakel, the book's editor, devotes 86 pages to basic medical problems of the circulatory and respiratory systems. Consequently, this book is of little help to a family physician involved in the surgical treatment of his patients' diseases.

But, all in all, *The Year Book of Family Practice* serves a useful purpose. Every modern family physician should buy and use this book.

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CLINICAL ARTHROGRAPHY—Rolf D. Arndt, MD, Radiologist, St. John's Hospital and Health Center, Santa Monica, Assistant Clinical Professor of Radiology, University of California, Los Angeles; John W. Horns, MD, Radiologist, St. John's Hospital and Health Center, Santa Monica, Assistant Clinical Professor of Radiology, University of California, Los Angeles; Richard H. Gold, MD, Professor of Radiology, Chief of Skeletal Radiology, University of California, Los Angeles; with a special contribution on temporomandibular joint arthrography by Donald D. Blaschke, DDS, Assistant Professor, Section of Oral Radiology, University of California, Los Angeles, School of Dentistry. Williams & Wilkins Company, 428 E. Preston St., Baltimore (21202), 1981. 212 pages, $30.00.

This small textbook by four authors offers concise information on arthrography of the knee, shoulder, hip, elbow, ankle, wrist, hand joints and temporal mandibular joint. Despite the multiple authors there is a uniformity of style and text arrangement throughout the book. Each chapter begins with a brief description of the usual clinical indications, followed by the normal anatomy, the method of arthrography, the normal arthrogram and the abnormal arthrogram. Each of the chapters offers a complete description of the normal radiographic anatomy and the usual abnormalities that can be detected.

The text is easy to read and the illustrations usually are close to the related text pages. A few of the authors' techniques differ from the practices used by others. For instance, double contrast arthrography of the knee and the shoulder is performed in two separate stages requiring two separate needle punctures. In addition, the authors remove the air from the knee joint at the end of the procedure, necessitating a third joint puncture. Arthrography of the wrist is described as being performed in a sitting position. Elbow arthrography is recommended either sitting or lying down. Other arthrographers have observed that a significant number of patients will experience a vagal reaction and faint if the procedure is done sitting up. The majority of the illustrations are clear, but the sections on knee arthrography and ankle arthrography contain some images that are too dark, have too much contrast or are too small for clear interpretation.

This textbook will be a useful tool in the average radiology department. Its low price will make it very competitive with other more expensive textbooks on the market. The book is aimed at radiologists who perform and interpret arthrograms. The text would be of secondary interest to orthopedic surgeons, and possibly

†Dr. Snodgrass died Nov. 6, 1981.

rheumatologists. The inclusion of the chapter on temporomandibular joint arthrography is especially helpful because not much information on this procedure is included in other texts.

In summary, this small, inexpensive text offers useful information to arthrographers in a format that is well organized and easy to understand.

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TOPICAL STEROID TREATMENT FOR ASTHMA AND RHINITIS—Edited by N. Mygind, MD, Senior Lecturer in Otopathology, Rigshospitalet, Copenhagen; and T. J. H. Clark, BSc, MD, FRCP, Consultant Physician, Guy's and Brompton Hospitals; Professor of Thoracic Medicine, Guy's Hospital Medical School, London. Cassell Ltd, 35 Red Lion Square, London WCIR 4SG, 1980, 188 pages.

Within a year of the introduction by Kendall and Hench in 1949 of cortisone for the treatment of rheumatoid arthritis, its use was extended to the treatment of asthma and allied allergic conditions. Since then, the synthetic analogues of cortisone, known collectively as steroids, have been established in the pharmacotherapy of many allergic diseases. Consensus opinion of this experience recognizes that the steroids often suppress signs and symptoms at the price of hypercortisolism and suppression of the physiological hypothalamic-pituitary-adrenal (HPA) axis function. Since asthma and rhinitis are largely diseases of single target tissue systems, efforts have been made with each of the newly introduced steroids to try them in a topical fashion. The text under review concentrates mainly on the most widely accepted of these agents, beclomethasone diproprionate (BD). Perhaps a book dealing largely with a single drug modality, as this one does, is justified on the basis of potential application in more than 14 percent of the total population—a conservative estimate of the combined prevalence of the two related diseases.

One chapter discusses the pharmacology of BD. The drug was initially chosen on the basis of its high topical potency in the McKenzie test. This assay depends upon the visual assessment of skin blanching due to vasoconstriction after topical application of alcoholic extracts of the test compounds. BD scored the highest of a dozen or more tested, or five times the skin blanching of the control steroid—fluocinolone-16, 17-acetonide. It has been hypothesized that this property of vasoconstriction is associated with nonpolarity of the compounds, a configuration thought to enhance skin absorption and enable better fit with the steroid receptors in the cytoplasm of target cells.

In both asthma and rhinitis, BD is administered in patient-activated, gas-propelled aerosols. Over 90 percent of particulates in such aerosols designed for bronchial deposition do not reach the intended target. Instead, the bulk lands in the mouth and if not expectorated is probably swallowed. BD is not insoluble and 90 percent is absorbed by the gastrointestinal tract when ingested as a fine powder. One wonders why it would not exert the systemic effect of most of its predecessor steroids. As far as I can determine, the answer comes from just one study (Martin, et al, Clin Pharmacol Ther 15:267, 1974), cited on page 41, that found that most of the material absorbed was excreted via bile into feces as *inactive* polar metabolites. I emphasize inactive because while this is the conclusion of the authors, they cite no studies to prove inactivity of the metabolites.

Several authors in two chapters try to explain the mode of action of the steroids in asthma and rhinitis. Multiple factors are raised, including nonspecific anti-inflammation, β-adrenergic enhancement, mucous viscosity decrease, antibody inhibition and smooth muscle relaxation; but the authors found contradictory evidence for each of these proposals. Thus after over 30 years of clinical use, the mechanism of steroid action in allergic disease in still uncertain.

Most chapters are concerned with therapeutic indications and effect. Several studies suggest that the usual BD dosage of 400 μg or eight inhalations a day in divided doses replaces between 5 and 10 mg of orally given prednisone, at least in the case of asthma. However, Toogood and associates found a different relation. They studied 34 adult patients over two years who had required a mean daily dose of 11.5 mg of prednisone for control of asthma. To achieve comparable relief, these patients required 1,082 μg of inhaled BD plus 4.8 mg of oral prednisone, in mean daily doses. Thus, in this group, 1,082 μg of BD replaced 6.7 mg of prednisone (initial 11.5 mg minus ending 4.8 mg). Only 6 of the 34 patients could consistently omit orally taken steroids throughout the last six months of the two years of follow-up.

While lack of systemic effect is promoted as the major virtue of the inhaled steroids, like many avowed virtues this one also has qualifications. Inhaled BD in therapeutic doses has similar neutrophilic, lymphopenic and eosinopenic effects as do the other steroids in therapeutic doses. The most prevalent side effects of the inhaled forms have been oral candidiasis (overall incidence of 5 percent) and hoarseness (overall incidence not given). While mucosal atrophy at sites of major impaction of the inhaled steroid, especially the anterior nasal septum and pharynx, is considered a potential threat, few abnormalities have been found in follow-up biopsies of up to five years.

This book will acquaint readers with the pertinent literature about this popular mode of treatment. It also left this reader with many unanswered questions, a few as follows: Do the inhaled steroids act only topically? If so, how do they reach injured areas distal to obstructed bronchi and nasal turbinates? May the absorbed material actually be exerting generalized effects, so that we are in effect giving pulsing doses of small amounts of steroids, whose HPA axis suppression is not measured by conventional daily tests and is this why multiple daily doses of inhaled steroids are needed for efficacy? And, finally, are inhaled steroids preferable for a patient than, say, 10 to 20 mg of prednisone on alternate days, considering safety, effectiveness and cost? Time should tell whether a major breakthrough in steroid therapy has been achieved instead of simply a trade-off of one modality of administration for another.

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